

REMARKS

A substitute specification is submitted herewith.

Claim 1 is amended herein to recite "wherein when the alloy layer contains tin, the content of tin is in a range of larger than 0.05 g/m^2 but is smaller than 1.5 g/m^2 , and when the alloy layer contains zinc or nickel, the content of zinc or nickel is larger than 0.03 g/m^2 but is smaller than 1.8 g/m^2 ". Support for the amendment is found, for example, in the paragraph bridging pages 7 and 8 of the original specification.

Claim 2 is canceled.

Claims 3, and 5-7 are amended to correct minor informalities.

No new matter is presented.

Accordingly, upon entry of the Amendment, claims 1 and 3-12 will be all of the claims pending in the application.

I. Response to Claim Rejection under 35 U.S.C. § 112, 2nd Paragraph

Claims 3, 5 and 6 are rejected under 35 U.S.C. § 112, 2nd paragraph, as allegedly being indefinite.

Regarding claim 3, the Examiner states that it is unclear whether an (i-2) layer is required and when an (i-2) layer is present, whether the layer further comprises Fe in part thereof.

With respect to claims 5 and 6, the Examiner states that it is unclear what is meant by the phrase, "by the treatment using".

Applicants submit that claims 3, 5 and 6 have been amended herein. Claim 3 is amended to clarify that the tin-plated layer (i-2) having an alloy layer of tin and iron is on the side of the steel plate and that a tin-iron alloy layer is formed in a portion of the (i-2) layer on the side of the steel plate, thereby obviating this ground for rejection.

Claims 5 and 6 are amended by replacing the phrase "by using" with the word "with" to correct a grammatical error, thereby obviating this ground for rejection.

Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112, 2nd paragraph.

II. Response to Claim Rejections under 35 U.S.C. § 102

A. Sakai et al (JP 05-004302)

Claim 1 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sakai et al.

Applicants respectfully traverse the rejection and submit that the present invention is not anticipated by Sakai et al.

Claim 1 of the present application is directed to a resin-coated steel plate obtained by providing, on at least one surface of the steel plate, (i-1) an alloy layer of iron and at least one metal selected from tin, zinc and nickel, and when the alloy contains tin, the content of tin is in a range of larger than 0.05 g/m² but it is smaller than 1.5 g/m², and when the alloy layer contains zinc or nickel, the content of zinc or nickel is larger than 0.03 g/m² but is smaller than 1.8 g/m², or (i-2) a tin-plated layer containing tin in an amount of not smaller than 0.5 g/m², (ii) a silane coupling agent-treated layer, and (iii) a thermoplastic polyester resin layer in this order from the side of the steel plate.

The Examiner states that Sakai et al teaches a steel sheet that is coated with a Fe/Zn layer, a silane coupling layer and a thermoplastic polyester layer. However, zinc is applied by molten zinc plating according to Sakai et al. Therefore, the amount of zinc that is plated is greater than the range specified in the present invention.

That is, though Sakai et al does not particularly specify the thickness of the plated layer, it is disclosed that the amount of weight that is usually used for forming the alloy is in

a range of 20 to 80 g/m² (paragraph [0016] of Sakai et al), which is distinctly different from the amount of zinc, which in the case of a zinc alloy of the present invention, lies in a range of 0.03 to 1.8 g/m² in the present invention.

The amount of zinc in the molten plating is usually determined by JIS Standards and ASTM. According to, for example, JIS G 3302, zinc is deposited in an amount of not less than 60 g/m² and not less than 40 g/m² even when a zinc-iron alloy is to be formed. The description corresponding to JIS G 3302 can be found in the ASTM A 653 and ASTM A 123, which may be either thermosetting or thermoplastic.

In the Examples of Sakai et al, a thermosetting polyester resin is employed. From the standpoint of using a silane coupling agent, Sakai et al further teaches unsaturated polyesters and thermosetting polyesters as preferred examples (paragraph [0021] of Sakai et al), from which it is natural to consider that Sakai et al is excludes the thermoplastic polyester resins used in the present invention.

Even further according to Sakai et al, the polyester must have a viscosity to impart an oscillation-damping property. In this respect, Sakai et al's object is markedly different from that of the present invention.

In view of the above, Applicants respectfully request withdrawal of the anticipation rejection under 35 U.S.C. § 102 based on Sakai et al.

B. Nakakoji et al (JP 2003-003281)

Claims 1-5, 8, 9 and 12 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Nakakoji et al.

Applicants claim priority to JP 2002-64114 and JP 2002-64127, each filed in Japan on March 8, 2002, which precedes the effective date of January 8, 2003 of Nakakoji et al. Verified English translations of each of JP 2002-64114 and JP 64127 are submitted herewith

to perfect Applicants' claim to priority in accordance with 37 C.F.R. § 1.55. Each priority document provides support for the present rejected claims. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102.

C. Shimizu et al (JP 2002-113809)

Claims 1-3, 8-10 and 12 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Shimizu et al.

Applicants claim priority to JP 2002-64114 and JP 2002-64127, each filed in Japan on March 8, 2002, which precedes the effective date of April 16, 2002 of Shimizu et al. Verified English translations of each of JP 2002-64114 and JP 2002-64127 are submitted herewith to perfect Applicants' claim to priority in accordance with 37 C.F.R. § 1.55. Each one of the priority documents provides support for the present rejected claims. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102.

III. Response to Claim Rejection under 35 U.S.C. § 103

A. Sakai et al (JP 05-004302)

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sakai et al. It is the Examiner's position that it would have been obvious to one of ordinary skill in the art to apply the various silane materials in the laminates of Sakai et al throughout the entire range of effective silane material areal densities as disclosed by Sakai et al. Further the Examiner asserts that it would be expected that some of these applied layers would obtain the claimed silicon areal densities of claim 4.

Claim 4 depends from claim 1 and is distinguished over the art for at least the same reasons as claim 1 as discussed above. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 103.

B. Shimizu et al (JP 2002-113809)

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimizu et al. It is the Examiner's position that it would have been obvious to one of ordinary skill in the art to apply conventional silane materials in the laminates of Shimizu et al throughout the entire range of effective silane material thicknesses as disclosed by Shimizu et al and it would have been expected that some of these applied layers would obtain the claimed silicon areal densities of claim 4.

Applicants claim priority to JP 2002-64114 and JP 2002-64127, each filed in Japan on March 8, 2002, which precedes the effective date of April 16, 2002 of Shimizu et al. Verified English translations of each of JP 2002-64114 and JP 2002-64127 are submitted herewith to perfect Applicants' claim to priority in accordance with 37 C.F.R. § 1.55. Each one of the priority documents provides support for the present rejected claims. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102.

IV. Allowable Subject Matter

Claims 6, 7 and 11 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for the early indication of allowable subject matter. However, Applicants respectfully submit that each of claims 5, 6 and 11 ultimately depend from claim 1 which is distinguished over the art of record for the reasons set forth above. Therefore, claims 5, 6 and 11 are distinguished over the art of record for at least the same reasons and are patentable as written.

Accordingly, Applicants respectfully request withdrawal of the objection.

V. Conclusion

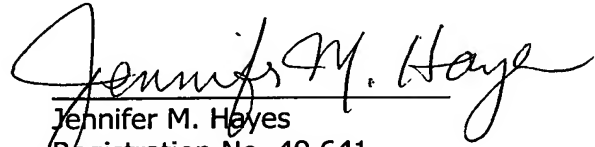
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 10/507,013

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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